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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/517,836 | 12/15/2004 | Eiji Akahane | 1602-0191PUS1 | 1303 |
| 2292 | 7590 | 03/30/2006 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | WEST, PAUL M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2856 | |

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/517,836 | AKAHANE ET AL. | |
| | Examiner | Art Unit | |
| | Paul M. West | 2856 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,4/1,5/4/1,6-8 and 10 is/are allowed.
- 6) ☒ Claim(s) 2,4/2,5/4/2 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12152004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2,4/2,5/4/2 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kataoka et al.

1. As to claim 2, Kataoka et al. teach a liquid fuel quantity measurement system comprising: a first container 9 which defines only a single space and directly stores liquid fuel; pressure application means 13 for raising air pressure within said first container 9 by supplying air into said first container; air pressure measurement means 15 for measuring the air pressure within said first container; a pipeline 37 through which said first container and said pressure application means communicate with each other; air volume measuring means 15 for measuring the volume of air supplied into said first container through said first pipeline by said pressure application means (Col. 8, lines 10-12); and arithmetic means 41 for calculating the volume of the liquid fuel within said first container 9 from both the volume of air measured by said air volume measurement means and a quantity of change in air pressure calculated from the air pressure within said first container measured by said air pressure measurement means 15 (Col. 8, lines 10-15).

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2. As to claim 4/2, Kataoka et al. teach the air volume measurement means comprising raised pressure measurement means 15 and storage means 55 for storing a corresponding relationship (Col. 8, eq. 1) between the raised air pressure and the volume of air supplied into said first container.

3. As to claim 5/4/2, the air volume measuring means 15 is also used as the raised pressure measurement means.

4. As to claim 9, Kataoka et al. teach a liquid fuel quantity measurement method comprising: providing a first container 9 which defines only a single space and directly stores liquid fuel; providing pressure application means 13 for raising air pressure within said first container 9 by supplying air into said first container; providing a pipeline 37 through which said first container and said pressure application means communicate with each other; supplying air into the first container through said pipeline by said pressure application means 13; detecting or calculating both the volume of the supplied air and a quantity of change in the air pressure within said first container 9 due to the air supply (Col. 8, lines 10-12); and calculating the volume of the liquid fuel within said first container from both the volume of the supplied air and the quantity of change in the air pressure (Col. 8, lines 10-15).

Allowable Subject Matter

5. Claims 1,3,4/1,5/4/1,6-8 and 10 are allowed.

Response to Arguments

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6. Applicant's arguments regarding claims 2 and 9, filed 18 January 2006 have been fully considered but they are not persuasive. Applicant has argued that Kataoka does not teach a first container which defines "only a single space" for "directly storing liquid fuel". However it has been interpreted that the Kataoka's container 9 defines only a single space which contains both fuel and air, just as Applicant's first container does. Just because the fuel is contained in a sack does not change the fact that it is entirely within container 9 and therefore "directly" stored within container 9.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul M. West whose telephone number is (571) 272-8590. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CHARLES GARBER
PRIMARY EXAMINER